

CLAIMS

I claim:

1. A process for producing a connecting element for sealing and non-releasable connection to a hollow body of thermoplastic material, comprising a step of press shaping a laminate of thermoplastic material, wherein the press shaping step is carried out between two mating platens.

2. The process according to claim 1, further comprising forming the laminate by co-extrusion of a multi-layer preform, and press shaping the preform in a first heating step to a definitive shape of the connecting element.

10 3. The process according to claim 2, wherein the preform is extruded in a form of a tube having oppositely disposed walls which are pressed against each other in the press shaping step.

4. The process according to claim 1, wherein the two mating platens comprise male and female mold portions.

15 5. The process according to claim 1, wherein the hollow body is formed by a blow molding operation, and the press shaping step is performed in the same blow molding operation.

6. The process according to claim 1, wherein the connecting element is formed by press shaping a plate-shaped, multi-layer, semi-finished product or excess extrudate from blow molding of the hollow body.

20 7. The process according to claim 1, wherein the laminate has a low level of permeability to hydrocarbons.

8. The process according to claim 7, wherein the laminate comprises at least one barrier layer for hydrocarbons.

9. The process according to claim 8, wherein the at least one barrier layer is at least almost completely embedded into the material of the connecting element.

25 10. The process according to claim 8, wherein the connecting element includes a cylindrical portion and the barrier layer extends at least in a region of the cylindrical portion of the connecting element near an inside wall thereof.

11. The process according to claim 8, wherein the laminate comprises at least first and second barrier layers.

12. The process according to claim 11, wherein the connecting element has a main body substantially comprising polyethylene and the barrier layers are embedded in the main body.

13. The process according to claim 11, wherein the barrier layers comprise EVOH (ethylene vinyl alcohol).

5 14. The process according to claim 7, wherein the hollow body is a fuel tank.

15. The process according to claim 14, wherein the connecting element is in a form of an insert adapted for fitting to the fuel tank in sealed relationship therewith.

10 16. The process according to claim 15, wherein the insert is adapted to be connected to the fuel tank by a connection involving joining of the thermoplastic materials of the insert and the fuel tank.

17. The process according to claim 15, further comprising a step of welding the insert to the fuel tank

15 18. The process according to claim 17, wherein the welding step is selected from the group consisting of hot plate welding, butt welding, friction welding, and sealing with heat reflectors.